



US 20210117642A1

(19) **United States**

(12) **Patent Application Publication**
Swager et al.

(10) **Pub. No.: US 2021/0117642 A1**

(43) **Pub. Date: Apr. 22, 2021**

(54) **SYSTEMS AND METHODS FOR
DETERMINING A CHARACTERISTIC OF AN
EMISSIVE SPECIES**

filed on Aug. 24, 2020, provisional application No. 63/054,176, filed on Jul. 20, 2020, provisional application No. 62/916,331, filed on Oct. 17, 2019.

(71) Applicant: **C2Sense, Inc.**, Watertown, MA (US)

Publication Classification

(72) Inventors: **Timothy Manning Swager**, Newton, MA (US); **Jason R. Cox**, Worcester, MA (US); **Robert Deans**, Grafton, MA (US); **Zhengguo Zhu**, Chelmsford, MA (US); **Brian E. Fratto**, Holden, MA (US); **Gabriel Davis**, Aliquippa, PA (US)

(51) **Int. Cl.**
G06K 9/00 (2006.01)
G06K 19/14 (2006.01)
H01L 51/50 (2006.01)

(52) **U.S. Cl.**
CPC **G06K 9/0004** (2013.01); **H01L 51/5012** (2013.01); **G06K 19/14** (2013.01)

(73) Assignee: **C2Sense, Inc.**, Watertown, MA (US)

(21) Appl. No.: **17/072,986**

(22) Filed: **Oct. 16, 2020**

Related U.S. Application Data

(60) Provisional application No. 63/085,929, filed on Sep. 30, 2020, provisional application No. 63/069,544,

(57) **ABSTRACT**

Embodiments described herein generally relate to: sensing and/or authentication using luminescence imaging; diagnostic assays, systems, and related methods; temporal thermal sensing and related methods; and/or to emissive species, such as those excitable by white light, and related systems and methods.

200

